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Indian Reserved Water Rights Doctrine and the Groundwater Question

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COMMENTS

INDIAN RESERVED WATER RIGHTS DOCTRINE AND THE GROUNDWATER QUESTION

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I. Introduction

More than eighty-five years ago the Supreme Court developed the doctrine of Indian reserved water rights in *Winters v. United States.*[1] The *Winters* Court held that the United States, in creating the Fort Belknap Indian reservation, implicitly reserved river water flowing through and adjacent to the reservation "for a use which would be necessarily continued through years."[2] The Court further held that the reserved water was exempt from state prior appropriation water laws.[3]

The scope of the "*Winters* doctrine" was necessarily limited to surface waters by the facts of the case. However, the *Winters* doctrine has been expanded tremendously from a simple Indian water rights case to a complex doctrine applicable to all federally reserved land.[4] This comment addresses one aspect of the doctrine: the treatment of groundwater in relation to the Indian reserved water right.[5]

The Supreme Court has never ruled directly on the issue of whether the reserved water right of Indian reservations is applicable to groundwater. Legal commentators disagree on the issue. A number of federal and state courts recognize that Indian reserved water rights extend to groundwater. An equally divided Supreme Court, however, affirmed without opinion a Wyoming Supreme Court decision that held there was no intent by the United States to reserve groundwater rights for the Wind River Indian Reservation.[6] Congress,

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1. 207 U.S. 564 (1908).

2. *Id.* at 576-77.

3. *Id.*

4. A thorough explanation of the evolution is beyond the scope of this comment. For such a description, see Harold A. Ranquist, *The* Winters *Doctrine and How It Grew: Federal Reservation of Rights to the Use of Water*, 1975 B.Y.U. L. REV. 639. Under the expanded *Winters* doctrine it generally can be said that whenever the United States withdraws land from the public domain, it implicitly reserves ground and surface waters to the extent necessary to fulfill the purpose of the reservation. DAVID H. GETCHES, WATER LAW IN A NUTSHELL 311 (2d ed. 1990); Robert J. Grow & Monte N. Stewart, *The* Winters *Doctrine as Federal Common Law*, 10 NAT. RESOURCES LAW. 457, 458 (1977).

5. This comment will not examine in detail Indian claims of aboriginal title to water. Some tribes and law commentators have argued that Indian tribes have aboriginal water rights which predate the rights of non-Indians. *See, e.g.*, James L. Merrill, *Aboriginal Water Rights*, 20 NAT. RESOURCES J. 45 (1980); Rondolyn R. O'Brien, *Indian Pueblo Water Rights Not Subject to State Law Prior Appropriation*, 17 NAT. RESOURCES J. 341, 342 (1977). A federal district court has issued a stipulated decree that one tribal reservation has an immemorial priority date for certain uses of the Gila River. United States v. Gila Valley Irrigation Dist., Globe Equity Decree No. 59, slip op. at 6, 86 (D. Ariz. June 29, 1935). However, not all reservation Indians can claim aboriginal title to water since many tribes were uprooted and transplanted to reserved lands. Furthermore, aboriginal water rights would protect water only as used by Indians since time immemorial and would not protect recently developed water uses.

6. *In re* Big Horn River Sys., 753 P.2d 76 (Wyo. 1988), *aff'd mem. by an equally divided Court sub nom.* Wyoming v. United States, 492 U.S. 406 (1989).

by exercising its plenary power over Indians, has declared that water rights disputes should be resolved through negotiated settlements rather than by litigation. Congress has ratified numerous water settlement agreements negotiated by state governments, federal officials, and Indian tribes in pursuit of this policy.

This examination of Indian reserved water rights as applied to groundwater will begin with an explanation of precisely what groundwater is and why groundwater increasingly raises important legal issues and problems. The various water rights legal systems will then be described. A cursory overview of both federal Indian policy and how the Indian reserved water right evolved to its current state will follow. The main sections of this comment will analyze how the Indian reserved groundwater rights question has been treated through adjudications and negotiated settlements by the three branches of the federal government, Indian tribes, and state governments. The examination will conclude with comments on how current uncertainty regarding Indian groundwater rights might encourage the policy of resolving Indian water rights through negotiation instead of litigation.

II. The Nature of Groundwater

A. Groundwater Defined

Subsurface water is water existing "below the surface of the earth in the interstices of soil and rocks," and groundwater is "that part of subsurface water in interstices completely saturated with water."[7] Subsurface waters collect in hydrological cycles when precipitation falls to earth in the form of rain or snow or when fed by surface waters, such as rivers, lakes, and wetlands.[8] An aquifer, which is essentially an underground reservoir of water, is formed when permeable formations are saturated with water and contained by impermeable formations.[9]

B. Types of Aquifers

Aquifers are classified as confined or unconfined.[10] Confined aquifers (also called artesian aquifers) sometimes naturally flow to the surface, such as in the case of a spring, because they are under greater-than-atmospheric

7. NATIONAL WATER COMM'N, WATER POLICIES FOR THE FUTURE 230 (1973) (quoting WILLIAM C. WALTON, GROUNDWATER RESOURCE EVALUATION (1970)).

8. CHARLES E. CORKER & DR. JAMES W. CROSBY III, GROUNDWATER LAW, MANAGEMENT AND ADMINISTRATION 48-51 (1971); *see* GETCHES, *supra* note 4, at 235-40; ZACHARY A. SMITH, GROUNDWATER IN THE WEST 4 (1989); U.S. DEP'T OF THE INTERIOR, GROUND WATER MANUAL 2 (2d ed. 1981). Subsurface water is sometimes called percolating groundwater because it filters through the earth into interstices of soil and rock. *See* SMITH, *supra*, at 4.

9. GETCHES, *supra* note 4, at 238.

10. CORKER, *supra* note 8, at 68-75; *see* GETCHES, *supra* note 4, at 238-39; SMITH, *supra* note 8, at 5.

pressure.[11] The greater-than-atmospheric pressure is generated when overlying and underlying impermeable strata compress the aquifer.[12]

Most aquifers are unconfined, existing under normal atmospheric pressure.[13] Unconfined aquifers must be pumped to withdraw the groundwater.[14]

The rate of displaced groundwater being replaced by the hydrological cycle varies greatly according to permeability of the formation and geological conditions.[15] Some aquifers are functionally nonrecharging because it takes decades or centuries for pumped groundwater to be replaced.[16] For example, many groundwater aquifers in New Mexico are functionally nonrecharging, and they are administered with the understanding that they will be depleted in the future.[17]

Aquifers undergo depletion, also referred to as overdrafts or mining, when groundwater is withdrawn at a rate greater than its rate of recharging.[18] The "safe yield" of an aquifer is the amount of groundwater an aquifer will yield without overdraft.[19] For example, many groundwater aquifers in North Dakota recharge regularly, allowing those groundwater systems to be managed on a "safe yield" basis.[20]

C. Inadequate Geohydrologic Data

One problem in administering groundwater rights is the problem of locating and accurately quantifying aquifers. The Supreme Court of Ohio aptly stated the problem in 1861:

> [T]he existence, origin, movement and course of [groundwaters], and the causes which govern and direct their movements, are so secret, occult and concealed, that an attempt to administer any set

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11. CORKER, *supra* note 8, at 68-75.
12. *Id.* at 68-72.
13. *Id.*
14. *Id.* at 69.
15. *Id.* at 72-75.
16. Charles J. Meyers, *Federal Groundwater Rights: A Note on* Cappaert v. United States, 13 LAND & WATER L. REV. 377, 382 (1978).
17. SMITH, *supra* note 8, at 10. Dean Meyers cites the Ogallala aquifer as "a well-known example of a functionally non-recharging aquifer." Meyers, *supra* note 16, at 382. The Ogallala aquifer covers an area of 225,000 miles, underlying portions of New Mexico, Texas, Oklahoma, Kansas, Colorado, Nebraska, Wyoming, and South Dakota. SMITH, *supra* note 8, at 14-15. The impact of overdrafts varies significantly region to region. *Id.*; *see also* Steve Frazier & Brenton R. Schlender, *Huge Area in Midwest Relying on Irrigation Is Depleting Its Water*, WALL ST. J., Aug. 6, 1980, at 1, col. 6 (reporting that water is being withdrawn from some parts of the Ogallala aquifer at 15 to 18 times faster than it can be recharged).
18. CORKER, *supra* note 8, at 75-78, 96-97; GETCHES, *supra* note 4, at 239; SMITH, *supra* note 8, at 5.
19. CORKER, *supra* note 8, at 75-78, 96-97; GETCHES, *supra* note 4, at 239.
20. SMITH, *supra* note 8, at 10.

> of legal rules in respect to them would be involved in hopeless uncertainty, and would be, therefore, practically impossible.[21]

Geohydrology has made tremendous strides in measuring and tracking groundwater since 1861, but it remains a significant problem.[22] For example, hydrologists such as Corker and Crosby have noted at least five variables in measuring an aquifer: (1) total quantity of water in the aquifer; (2) the rate of recharge; (3) the changing quality of the available groundwater; (4) the effect of withdrawals on groundwater levels and withdrawal capabilities; and (5) the effect of groundwater withdrawal on surface water supplies.[23]

It is an arduous and expensive task for courts and water supply administrators to obtain the necessary geohydrologic data to make informed decisions about the supply and movement of groundwater.[24] For instance, one major obstacle is detecting and proving overdrafts. The inadequacy of data becomes critical when a party has to shoulder the burden of proof to assert a groundwater right in litigation.[25]

D. Hydrologically Connected Ground and Surface Waters

As noted previously, groundwater and surface waters frequently interrelate: Groundwaters can feed surface streams, while surface waters can connect to and charge aquifers.[26] This becomes a cause for concern when groundwater users tap into an aquifer that supplies connected surface waters because the depletion of the aquifer could reduce the flow of the surface water.[27] Hydrologists and water law commentators advocate managing hydrologically connected ground and surface waters as a single, integrated system since the connected waters actually constitute one water supply.[28]

Initially, some hydrologists theorized that groundwater was separate and unrelated to surface waters.[29] Based on this inaccuracy, many states created separate legal systems for groundwater and surface waters.[30] Uncertainty and confusion resulted when state economies "developed in reliance on two

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21. Frazier v. Brown, 12 Ohio St. 294, 311 (1861).

22. CORKER, *supra* note 8, at 80-81; Douglas L. Grant, *The Complexities of Managing Hydrologically Connected Surface Water and Groundwater Under the Appropriation Doctrine*, 22 LAND & WATER L. REV. 63, 89-90 (1987).

23. CORKER, *supra* note 8, at 53.

24. Grant, *supra* note 22, at 89-90.

25. *Id.*

26. CORKER, *supra* note 8, at 56-58; NATIONAL WATER COMM'N, *supra* note 7, at 233; Grant, *supra* note 22, at 63-64. It is notable, however, that most aquifers and surface waters in Arizona are not hydrologically connected. *Id.* at 63 n.2.

27. CORKER, *supra* note 8, at 53.

28. Grant, *supra* note 22, at 64.

29. NATIONAL WATER COMM'N, *supra* note 7, at 233.

30. *Id.*

different legal systems for one interrelated supply" of water.[31] Arid western states, such as Colorado and New Mexico, had great difficulty in converting from bifurcated to integrated surface water and groundwater legal systems.[32]

Recognizing the "need for integration" of water law systems, the National Water Commission recommended:

> Recommendation No 7-1: State laws should recognize and take account of the substantial interrelation of surface water and ground water. Rights in both sources of supply should be integrated, and uses should be administered and managed conjunctively. There should not be separate codifications of surface water law and ground water law; the law of waters should be a single, integrated body of jurisprudence.[33]

Hence, a prudent interpretation of the Indian reserved water right would apply the doctrine uniformly to ground and surface waters. A few states, however, such as Arizona, continue to have bifurcated legal systems for ground and surface waters.

E. The Importance of Groundwater

Groundwater has become a vital natural resource for the United States, especially for arid western states. It has been estimated that groundwater constitutes more than 90% of the fresh water supply in the United States.[34]

Groundwater use more than quadrupled from 21 billion to 88 billion gallons a day from 1945 to 1980.[35] Groundwater is relied upon nationally for 35% of the public water system supply; 80% of the water consumed for rural domestic and livestock purposes; 40% of the irrigated agriculture water; and 6% of the self-supplied industrial water.[36] Groundwater comprises 38% of the total water used in the nineteen western states,[37] of which: 8% is used in public water systems; 2% for rural domestic and livestock purposes; 82% for irrigated agriculture; and 8% for self-supplied industrial use.[38]

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31. *Id.*
32. *Id.*
33. *Id.*
34. SMITH, *supra* note 8, at 4, 18 n.1.
35. *Id.* at 4.
36. *Id.*
37. Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. *Id.* at 3.
38. *Id.* at 4. The percentages of groundwater to total water supply vary significantly state to state. It is 57% in Texas, 52% in Arizona, 48% in California and South Dakota; 46% in New Mexico, 35% in Idaho, 17.5% in Colorado, 10% in Wyoming, 9.3% in Utah, 9.2% in North Dakota, and only 2.3% in Montana. *Id.* at 5 (reprinting data compiled from U.S. GEOLOGICAL SURVEY, WATER SUPPLY PAPER 2250 — NATIONAL WATER SUMMARY (1983)).

Groundwater has always been important to the settlement of the West. Early western settlers relied on windmill pumps to provide enough water for domestic use.[39] Technological advances in the centrifugal pump and irrigation systems dramatically increased the reliance of western state economies on groundwater for mineral mining and irrigated agriculture.[40] The demands of growing populations will only increase the importance of groundwater in western state economies.

III. Water Rights Legal Systems

States have adopted different approaches to assigning water rights. These differing approaches become very confusing in states that bifurcate ground and surface water in their legal systems. Three major water rights legal doctrines have developed in Anglo-American jurisprudence: riparian, prior appropriation, and correlative rights.[41]

A. Riparian Doctrine

The common law rule, as it developed in England, is the doctrine of absolute ownership of water rights.[42] Under this doctrine, water rights run with the land. The owner of land has property rights to the water under the land and, absent malice, the water may be withdrawn without regard to the effect it has on other landowners.[43] American courts, particularly those in water-rich eastern states, widely adopted the riparian rights doctrine, but they modified it to enlarge the use restriction from malice to unreasonable use.[44] Thus, under the American riparian doctrine, water rights are part of the real property right with the restriction that the landowner has the right of reasonable use under the circumstances of supply and demand.

B. Prior Appropriation Doctrine

The prior appropriation doctrine was developed by western states, where water is a scarce and unreliable resource.[45] The premise is simple: "First in

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39. *Id.* at 6.

40. *Id.*; *see also* John H. Davidson, *South Dakota Groundwater Protection Law*, 40 S.D. L. REV. 1, 3-4 (1995) (discussing other aspects of the importance of groundwater).

41. CORKER, *supra* note 8, at 98-102. Hawaii and Louisiana have distinct hybrid systems. Hawaii's is based on aboriginal law and recent statutes. Louisiana adapted its water law system from the French Civil Code. GETCHES, *supra* note 4, at 207-13.

42. CORKER, *supra* note 8, at 98-102; GETCHES, *supra* note 4, at 246-47.

43. CORKER, *supra* note 8, at 102-04; GETCHES, *supra* note 4, at 246; SMITH, *supra* note 8, at 8.

44. CORKER, *supra* note 8, at 102-04; GETCHES, *supra* note 4, at 246; SMITH, *supra* note 8, at 8.

45. GETCHES, *supra* note 4, at 5-6. The prior-appropriation doctrine apparently was first enunciated by the Colorado Supreme Court in Coffin v. The Left Hand Ditch Co., 6 Colo. 443 (1882). Hence, it is frequently referred to as the "Colorado Doctrine." FRANK J. TRELEASE,

time, first in right."[46] The doctrine severs the water right from running with the land. The one who puts water to a beneficial use, whether or not he or she owns the connected land, has a right that is superior to that of later users from the same water source.[47] The prior appropriation doctrine developed as a practical and efficient means of dealing with a scarce and vital natural resource. Additionally, the doctrine encouraged economic development in the West since users risked the loss of their water rights if they failed to exercise them.

The prior appropriation doctrine developed in response to surface water conflicts and, in those states with unified systems, the doctrine carried over basically unchanged to groundwater. One recent development, however, is that many states regulate groundwater use and attempt to protect prior appropriations through groundwater use permits.[48] Many western states have statutes setting reasonable pumping levels for all or parts of a state.[49]

States with bifurcated groundwater and surface water legal systems sometimes apply different water rights doctrines to groundwater and surface water. Arizona, for example, applies riparian rights to groundwater and the prior appropriation doctrine to surface water.

C. Correlative Rights Doctrine

The correlative rights doctrine is a hybrid system of riparianism and prior appropriation that was developed initially by the California courts. States following the correlative rights doctrine usually have complex rules applying a combination of the riparian and prior appropriation doctrines to a variety of situations.[50] An application of the "California doctrine" is found in the well-known case of *Lux v. Haggin*.[51] In *Lux*, the California Supreme Court held that a person acquiring federal lands received riparian rights by virtue of his federal fee-patent but these rights were subject to prior appropriations existing on the public land or permitted by special legislation.[52]

The correlative rights doctrine, as generally applied to groundwater, preserves the landowner's right to use the water under his or her property but provides that landowners sharing a common source of groundwater have equal rights to a reasonable amount of water.[53] The correlative rights doctrine in

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FEDERAL-STATE RELATIONS IN WATER LAW 26 (1971).

46. GETCHES, *supra* note 4, at 6.

47. *Id.*

48. *Id.* at 249-51; SMITH, *supra* note 8, at 9-10.

49. GETCHES, *supra* note 4, at 249-51; SMITH, *supra* note 8, at 9-10. States with pumping-level statutes are Alaska, Colorado, Idaho, Kansas, Montana, Nevada, North Dakota, Oregon, South Dakota, Washington, and Wyoming. GETCHES, *supra* note 4, at 251.

50. GETCHES, *supra* note 4, at 6-7; TRELEASE, *supra* note 45, at 25-26.

51. 10 P. 674 (Cal. 1886).

52. *Id.* at 775, 783.

53. SMITH, *supra* note 4, at 9.

California applies riparian rights to overlying landowners and includes appropriation of any surplus on a first-to-use basis.[54]

IV. The Indian Reserved Water Rights Doctrine

A. Federal Authority Over Indians and Federal Indian Policies

A good summary of federal authority over Indians and Indian policy is found in *Felix Cohen's Handbook of Federal Indian Law*:

> The federal-tribal relationship is premised upon broad but not unlimited federal constitutional power over Indian affairs, often described as "plenary." The relationship is also distinguished by special trust obligations requiring the United States to adhere strictly to fiduciary standards in its dealings with Indians. The inherent tension between broad federal authority and special federal trust obligations has produced a unique body of law.[55]

Congressional plenary power stems from the Commerce Clause, which grants Congress power "[t]o regulate Commerce . . . with the Indian Tribes."[56]

The history of United States national policy toward Indians is marked by erratic pendular swings from one polar extreme to the other. The national policy positions can be categorized into distinct time periods.[57] The "formative years" encompass 1789 to 1871.[58] Initially, European-American settlers treated Indian tribes as quasi-independent nations that could be placated through treaties.[59] It was through these treaties that many of the current reservations were created. As the United States consolidated control over its territory and the expansion to the West and South became national policy, Congress adopted a policy of abandoning formal treaty making.[60]

Federal policy dramatically shifted to "allotment and assimilation" during the years 1871 to 1928.[61] Under this policy, Indian "civilization" and assimilation into American society was the goal. The Allotment Act[62] was the primary means of accomplishing this policy by encouraging the

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54. TRELEASE, *supra* note 45, at 37-38.

55. FELIX S. COHEN'S HANDBOOK OF FEDERAL INDIAN LAW 207 (Rennard Strickland et al. eds., 1982) [hereinafter COHEN].

56. U.S. CONST. art. I, § 8, cl. 3.

57. WILLIAM C. CANBY, JR., AMERICAN INDIAN LAW IN A NUTSHELL 9-31 (2d ed. 1988); COHEN, *supra* note 55, at 47-206.

58. COHEN, *supra* note 55, at 62.

59. *Id.* at 105.

60. *Id.* at 105-06.

61. *Id.* at 127-32.

62. Ch. 119, 24 Stat. 388 (codified as amended at 25 U.S.C. §§ 331-334, 339, 341, 342, 348, 349, 354, 381 (1988)).

government to allot Indian reservation lands to individual Indians, who could later convey the land to non-Indians.[63]

Policy shifted sharply to the opposite pole in the "Indian reorganization" era from 1928 to 1942.[64] Congress enacted the Indian Reorganization Act of 1934 to effectuate the government's new policy of halting allotment and protecting the land base of the tribes.[65] During this period tribes were encouraged to adopt constitutions.[66] Felix Cohen's original *Handbook of Federal Indian Law* was published in 1942, near the end of this era.[67]

From 1943 to 1961 federal policy swung back to the other pole to what was proclaimed the "termination" era.[68] Congressional criticism of Indian reorganization culminated in 1953 with the adoption of a federal policy of rapid and coercive "termination."[69] The goal of the termination policy was to destroy the communal lifestyle and sovereignty of certain enumerated tribes and to bring Indians under the jurisdiction of the states as assimilated, self-sufficient individuals.[70] Indian lands were allowed to pass to non-Indians, tribal economic development was ignored, and Indian relocation into urban areas was encouraged.[71]

The present era began in 1961 with the current federal policy of "self-determination" for Indian tribes.[72] Congress unofficially abandoned the termination policy in 1958, and during the 1960 presidential election the platforms of both Richard Nixon and John Kennedy supported changing federal Indian policy.[73] President Nixon set forth the current federal policy in 1970, declaring termination to have been a failure and urging Congress to adopt a new policy of tribal autonomy combined with the federal trust

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63. COHEN, *supra* note 55, at 130-31. The allotment policy had the effect of "checker-boarding" Indian reservations with Indian and non-Indian-held land. Non-Indian-held land within Indian reservation boundaries has complicated jurisdictional lines between tribal, state, and federal courts.

64. *Id.* at 144-52.

65. *Id.* at 147-51.

66. *Id.* at 149.

67. FELIX S. COHEN'S HANDBOOK OF FEDERAL INDIAN LAW (Five Rings 1986) (reprint of Univ. of N.M. photo. reprint 1971) (1942). Three editions of the *Handbook* have been published. The first edition, which promoted tribal sovereignty, was the first synthesis of Indian case law and became the authoritative treatise on Indian law. In a blatant attempt at revisionist history, the Department of Interior "updated" the *Handbook* with its 1958 edition. The 1958 edition was generally shunned by the legal community. The 1982 edition, published under the guidance of a board of prominent Indian law scholars, updated Cohen's original work within his original philosophy of advancing tribal sovereignty. COHEN, *supra* note 55, at vii-xi. The 1982 edition has restored the *Handbook* to its original position of being the authoritative treatise on Indian law.

68. COHEN, *supra* note 55, at 152-80.

69. *Id.* at 152-53; *see* H.R. 108, 83d Cong., 1st Sess., 67 Stat. B132 (1953).

70. COHEN, *supra* note 55, at 152-58.

71. *Id.* at 152-53.

72. *Id.* at 180-206.

73. *Id.* at 180-81.

relationship.[74] The self-determination policy is based on Indian tribes acting as the basic governing body for Indians, with the federal government performing a strong trustee role.[75] A congressional commission, the American Indian Policy Review Commission, was established in 1975 "to conduct a comprehensive review of the historical and legal developments underlying the Indians' unique relationship with the Federal Government in order to determine the nature and scope of necessary revisions in the formulation of policies and programs for the benefit of Indians."[76] Among other things, the Commission's 1977 report called for a repudiation of assimilationist policies and recognition of tribes as permanent, self-governing entities.[77] Subsequent to the commission's report, congressional and executive policies have favored tribal self-government.[78] Congress has failed, however, to repeal many laws enacted in the allotment and termination eras, which has led to judicial decisions contrary to current federal policy.[79]

In the turmoil of these dramatic executive branch and legislative policy shifts, the special trust relationship of the federal government toward Indians was judicially evolving.[80] The trust relationship took root[81] when Chief Justice John Marshall characterized Indian tribes as domestic dependent nations with a right to occupy reserved land until the United States extinguished title.[82] In a later decision, Marshall elaborated that "[Indians]

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74. H.R. DOC. NO. 363, 91st Cong., 2d Sess. (1970).

75. COHEN, *supra* note 55, at 185-88.

76. S.J. Res. 133, 93d Cong., 2d Sess., Pub. L. No. 93-580, 88 Stat. 1910 (1975).

77. 1 AMERICAN INDIAN POLICY REVIEW COMM'N, 95TH CONG., 2D SESS., FINAL REPORT ch. 5 (Comm. Print 1977).

78. CANBY, *supra* note 57, at 31.

79. *See, e.g.*, County of Yakima v. Confederated Tribes & Bands of the Yakima Indian Nation, 112 S. Ct. 683 (1992) (based on a 1906 amendment to the Allotment Act).

80. COHEN, *supra* note 55, at 220.

81. CANBY, *supra* note 57, at 34-35.

82. Johnson v. M'Intosh, 21 U.S. (8 Wheat.) 543, 586-88 (1823). In *Johnson v. M'Intosh*, Chief Justice Marshall attempted to rationalize the European "discovery" and "conquest" of America. He reasoned:

> [T]he tribes of Indians inhabiting this country were fierce savages, whose occupation was war, and whose subsistence was drawn chiefly from the forest. To leave them in possession of their country, was to leave the country a wilderness; to govern them as a distinct people, was impossible, because they were as brave and as high spirited as they were fierce, and were ready to repel by arms every attempt on their independence.

Id. at 590. Chief Justice Marshall apparently changed his view of Indian rights when he wrote the *Worcester v. Georgia* decision in 1832:

> America . . . was inhabited by a distinct people, divided into separate nations, independent of each other and the rest of the world, having institutions of their own, and governing themselves by their own laws. It is difficult to comprehend the proposition, that the inhabitants of either quarter of the globe could have rightful original claims of dominion over the inhabitants of the other, or over the lands they occupied; or that the discovery of either by the other should give the

are in a state of pupilage . . . . Their relation to the United States resembles that of a ward to his guardian."[83] The President and Congress adopted the special federal trust relationship to Indians as official policy during the self-determination era.

The Supreme Court recognizes, under the trust doctrine, that Congress has broad leeway in exercising its plenary power:

> In *Morton v. Mancari* the Supreme Court stated: "As long as the special treatment can be tied rationally to the fulfillment of Congress' unique obligation toward the Indians, such legislative judgments will not be disturbed."
>
> Although the Court has never spoken directly to the issue, the requirement of a rational tie between an Indian statute and the fulfillment of the trust relationship seems to impose substantive limitations on Congress. This standard, in practice, does not allow a reviewing court to second guess a particular determination by Congress that a statute is an appropriate protection of the Indians' interests.[84]

But the Supreme Court liberally construes statutes, treaties, agreements, and executive orders as creating Indian rights.[85] Furthermore, once Indian rights are shown to exist, the Supreme Court requires a "clear and plain" expression of congressional intent to abrogate them.[86] For example, in a treaty establishing an Indian reservation the Court will construe congressional silence on water rights as creating, by implication, Indian rights to water. Once established, the right can only be taken away by a "clear and plain" statement of Congress to that effect.

The federal government, however, has a long history of being grossly remiss in securing, protecting, and developing adequate water supplies for Indian reservations. As stated in *Cohen*:

> discoverer rights in the country discovered, which annulled the pre-existing rights of its ancient possessors.

Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 542-43 (1832) (holding that a state law regulating the Cherokee territory was superseded by United States laws and treaties designed to protect the right of self-government by Indian tribes); *see also* Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1 (1831) (holding that Indian tribes are not "foreign states" within the meaning of Article III of the Constitution). One could speculate that Chief Justice Marshall's changed perspective was a result of the lapse in time. Perhaps it may have been because the case of *Johnson v. M'Intosh* only indirectly concerned Indians, whereas *Cherokee Nation* and *Worcester* directly involved the rights of Indian tribes and individuals.

83. Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) at 17.

84. COHEN, *supra* note 55, at 221 (quoting Morton v. Mancari, 417 U.S. 535, 555 (1974)).

85. *Id.* at 224.

86. *Id.*

> [T]he government's failure to assert, protect, and develop Indian water rights can be traced to its conflicts of interest. The United States Congress and the Interior and Justice Departments have responsibility to advance, at the same time, the national interest in land and water use as well as the interests of Indians for whom the government acts as trustee. Disputes often arise between the Bureau of Indian Affairs and other agencies within the Department of Interior. An Indian tribe might claim water rights which are needed for a reclamation project or other federal uses. When the competing claims are resolved within the Department, too often the result is that Indian claims tend to be compromised or defeated.[87]

Some tribes have instituted lawsuits against the United States, claiming breach of fiduciary duty in fulfilling its trust obligations toward the Indians.[88] In *Gila River Pima-Maricopa Indian Community v. United States*,[89] the Gila River tribes claimed the United States breached its fiduciary duty by permitting groundwater mining adjacent to the reservation. The court noted that in settling the water rights claims of the Ak-Chin Indian community, Congress admitted that "it is likely that the United States would be held liable for its failure to provide water and for allowing ground water beneath the reservation to be mined."[90] Then, the court stated:

> Ground water under the Gila River reservation impliedly was reserved for the Indians. The special relationship that triggers the fair and honorable dealings standard obligates the United States to protect the ground water to the extent that it is needed as a supplement to surface water supplies to maintain a self-sufficient status from irrigated agriculture. This special relationship, however, did not create a right in plaintiffs to have the United States obligated to protect and preserve for them all of the ground water under the reservation. . . . Plaintiffs' right to protection of ground water resources extended only to ground water that could have been put to beneficial use. Defendant would have liability only on a showing that the Pima Agency's actions denied

87. COHEN, *supra* note 55, at 597; *see* NATIONAL WATER COMM'N, *supra* note 7, at 474-75.

88. PETER W. SLY, RESERVED WATER RIGHTS SETTLEMENT MANUAL 90 (1988); *see, e.g.*, White Mountain Apache Tribe v. Hodel, 840 F.2d 675 (9th Cir. 1988) (dismissing without prejudice, because the tribe had not exhausted administrative remedies, tribal claims that the Department of the Interior fraudulently mismanaged the tribe's grazing land and timber in order to divert Salt River water from the reservation to non-Indian water users).

89. 9 Cl. Ct. 660 (1986), *aff'd*, 877 F.2d 961 (Fed. Cir. 1989).

90. *Id.* at 699 (quoting Water Rights Claims — Ak-Chin Indian Community, Pub. L. No. 95-328, 92 Stat. 409 (1978)).

> plaintiffs' water for irrigation that otherwise could have been put to beneficial use.[91]

The court held the Gila River tribes failed to meet their burden of proof; to date, no tribe has successfully asserted a groundwater claim against the United States under this trust relationship standard.

B. Judicial Interpretation of Indian Treaties and Agreements

Treaties and agreements creating Indian reservations were drafted by the United States and agreed to by Indians who usually neither spoke nor read English. The Supreme Court has been suspect of the fairness of these treaties and agreements given the circumstances under which they were negotiated.

Central to the Supreme Court's federal trust doctrine are special canons of construction that the Court developed for interpreting treaties and agreements between Indians and the United States government.[92] Three primary canons of construction have been developed: (1) interpreting the agreement or treaty as the Indians themselves would have understood it;[93] (2) resolving ambiguities in the documents in favor of the Indians;[94] and (3) liberally construing the treaties or agreements in favor of the Indians.[95] Additionally, the Supreme Court has ruled that Congress must show a "clear and plain" intent to abrogate Indian treaty rights.[96]

C. Federal Conflict with State Prior Appropriation Laws

The *Winters* doctrine resulted from a conflict over the application of state prior appropriation laws to federally held lands. Prior to the *Winters* decision Congress recognized the validity of several states' prior appropriation doctrine, and it had adopted a policy of deferring to local water laws.[97] In conflict with this policy was congressional reservation of lands for Indians by way of agreements and treaties: Would non-Indians, who were usually more economically developed than the Indians, be permitted to appropriate unused water adjacent to Indian reservations?

As noted in the introduction, the *Winters* doctrine established that Congress must have implicitly intended to reserve water rights in connection with lands set aside for Indian reservations. *Winters v. United States* involved a conflict

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91. *Id.* at 699-700.

92. COHEN, *supra* note 55, at 221.

93. Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 582 (1832).

94. Jones v. Meehan, 175 U.S. 1, 10-12 (1899); Choctaw Nation v. United States, 119 U.S. 1, 27 (1886).

95. Choate v. Trapp, 224 U.S. 665, 675 (1912).

96. Menominee Tribe v. United States, 391 U.S. 404, 413 (1968).

97. COHEN, *supra* note 55, at 577; GETCHES, *supra* note 4, at 194-97; *see, e.g.*, Act of July 26, 1866, ch. 262, § 9, 14 Stat. 251, 253 (codified at 30 U.S.C. § 51 (1988)), *amended by* Act of July 9, 1870, ch. 235, § 17, 16 Stat. 217, 218 (codified at 43 U.S.C. § 661 (1988)); Desert Land Act of 1877, ch. 107, 19 Stat. 377 (codified as amended at 43 U.S.C. §§ 321-329 (1988)).

of water rights between reservation Indians and non-Indians who owned lands ceded by the Indians to the federal government.[98] The non-Indians had made a substantial economic investment in diverting Milk River water for irrigated agriculture, thereby depriving the downstream Fort Belknap Indian Reservation of most of the Milk River water. The non-Indians claimed that the reservation was entitled to only 250 inches of water, since that was the amount of the Milk River water used by the reservation prior to the irrigation project.

The Supreme Court stated, "The case, as we view it, turns on the agreement of May, 1888, resulting in the creation of the Fort Belknap Reservation."[99] The agreement[100] was silent on the issue of water rights, so the Court turned to the canons of construction. The Court concluded that in making the agreement the Indians would have realized the need for water and would have reserved the use of the Milk River.[101] Thus, reserved water on Indian reservations were exempted from the prior appropriation laws of the states.[102]

The Court rationalized its decision by noting that the purpose of creating the reservations was to transform the Indian peoples from nomadic hunters and gatherers to a pastoral people.[103] Thus, the Court stated,

> [I]t would be extreme to believe that within a year Congress destroyed the reservation and took from the Indians the consideration of their grant, leaving them a barren waste — took from them the means of continuing their old habits, yet did not leave them the power to change to new ones.[104]

The *Winters* doctrine as it applies to Indian reservations has been reaffirmed by the Supreme Court in subsequent decisions.[105] The *Winters* doctrine, however, has an uncertain future as evidenced during oral arguments in the *Big Horn* case, when Supreme Court members questioned the continued validity of the reserved water rights doctrine.[106]

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98. 207 U.S. 564 (1908).

99. *Id.* at 575.

100. Agreement with the Indians of Gros Ventre, Piegan, Blood, Blackfeet, and River Crow Tribes Establishing a Reservation, Montana, May 1, 1888, ch. 213, 25 Stat. 113 (1887-1889).

101. *Winters*, 207 U.S. at 576-77.

102. *Id.*

103. *Id.*

104. *Id.* at 577.

105. *See, e.g.*, Arizona v. California, 373 U.S. 546, 600 (1963), *decree entered*, 376 U.S. 340 (1964).

106. Walter Rusinek, *A Preview of Coming Attractions?* Wyoming v. United States *and the Reserved Rights Doctrine*, 17 ECOLOGY L.Q. 355, 403-05 (1990). Rusinek analyzed the oral argument transcripts and interviewed reporters who attended the Supreme Court oral arguments in *Wyoming v. United States.*

In *Winters*, the Supreme Court was very ambiguous in defining the scope of the reserved water right, using the phrase "for a use which would be necessarily continued through years."[107] The open-ended reserved water right created by *Winters* undermined the prior appropriation doctrine by destroying the certainty that the doctrine brought to water rights in the West. For example, how could a non-Indian community or company invest in a project if it had no future guarantee of having the amount of water secured under the prior appropriation doctrine? The conflict is fundamental.

The *Winters* doctrine was slow to develop, due in part to the federal government's failure in its duty to protect the Indian water rights interest.[108] For example, the Department of Interior, which includes the Bureau of Indian Affairs, was given a conflicting duty under the Reclamation Act of 1902 "to locate, construct, operate and maintain works for the storage, diversion, and development of waters for the reclamation of arid and semi-arid land in the West."[109] In its report, the National Water Commission stated:

> Following *Winters*, more than 50 years elapsed before the Supreme Court again discussed significant aspects of Indian water rights. During most of this 50-year period, the United States was pursuing a policy of encouraging the settlement of the West and the creation of family-sized farms on its arid lands. In retrospect, it can be seen that this policy was pursued with little or no regard for Indian water rights and the *Winters* doctrine. With the encouragement, or at least the cooperation, of the Secretary of the Interior — the very office entrusted with protection of all Indian rights — many large irrigation projects were constructed on streams that flowed through or bordered Indian Reservations, sometimes above and more often below the Reservations. With few exceptions the projects were planned and built by the Federal Government without any attempt to define, let alone protect, prior rights that Indian tribes might have had in the waters used for the projects.[110]

A series of cases in the Ninth Circuit did address some of the issues implicated by the *Winters* doctrine.[111] Finally, in *Arizona v. California*,[112]

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107. *Winters*, 207 U.S. at 576-77.

108. COHEN, *supra* note 55, at 596-97; NATIONAL ASS'N OF ATTORNEYS GEN., LEGAL ISSUES IN INDIAN JURISDICTION 33 (1976); NATIONAL WATER COMM'N, *supra* note 7, at 474-75.

109. NATIONAL ASS'N OF ATTORNEYS GEN., *supra* note 108, at 33.

110. NATIONAL WATER COMM'N, *supra* note 7, at 474-75. In regard to the 50-year lapse in Supreme Court cases interpreting *Winters*, the Commission did footnote an exception in United States v. Powers, 305 U.S. 527 (1939), which extended the *Winters* doctrine to allotted lands sold to non-Indians.

111. *See* United States v. Ahtanum Irrigation Dist., 236 F.2d 321 (9th Cir. 1956), *cert. denied*, 352 U.S. 988 (1957) (upholding a 1908 agreement between the Secretary of the Interior

the Supreme Court reaffirmed the *Winters* doctrine and attempted to clarify the quantification issue. *Arizona* originated from disputed water right claims to the Colorado River waters and its tributaries by the states of Arizona and California.[113] Later, the United States asserted claims to the disputed water for the use of federally held lands, including five Indian reservations in Arizona, California, and Nevada.[114] In *Arizona*, the special master, who was appointed by the district court to conduct a lengthy trial and report on his findings, quantified the Indian reservation water needs according to the amount of water necessary to irrigate the practicably irrigable acreage on the reservation.[115] Thus, out of a supply of an estimated 7,500,000 acre-feet of water,[116] the special master reserved 1,000,000 acre-feet of water for 135,000 practicably irrigable acres of reservation land.[117] The Supreme Court agreed with this portion of the Special Master's report, stating:

> We have concluded, as did the Master, that the only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage. The various acreages of irrigable land which the Master found to be on the different reservations we find to be reasonable.[118]

The practicably irrigable acreage (hereinafter PIA) standard is based on an agricultural use of the land, which assumes that agriculture was the intended

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and all non-Indians of the State of Washington allocating to Indians 25% of the Ahtanum Creek waters and 75% to non-Indian settlers, but ordering the return to the Indians any unused portion of the 75% grant to non-Indians); United States v. Walker River Irrigation Dist., 104 F.2d 334, 337 (9th Cir. 1939) (extending the *Winters* doctrine to reservations created by executive department action without a congressional treaty or agreement); United States v. McIntire, 101 F.2d 650 (9th Cir. 1939) (holding that federal reserved waters are governed by federal rather than state law); Skeem v. United States, 273 F. 93 (9th Cir. 1921) (holding that reserved water rights remain appurtenant to allotted land when they remain in Indian ownership but are leased to a non-Indian); Conrad Inv. Co. v. United States, 161 F. 829, 835 (9th Cir. 1908) (holding that the Blackfeet Reservation had a paramount right to use of the Birch Creek waters to the extent reasonably necessary for the purposes of irrigation and stock raising, domestic and other useful purposes and providing for future adjustments in the amount of water the Indians could use); United States v. Wightman, 230 F. 277, 283-84 (D. Ariz. 1916) (holding that non-Indians who appropriated artesian waters from a military post on an Indian reservation could continue to use the water after the military post was abandoned); United States v. Hibner, 27 F.2d 909 (D. Idaho 1928) (holding that a non-Indian purchaser of an Indian allotment located outside the reservation boundary acquired a water right to irrigate the acreage that was under irrigation at the time title passed from the Indians).

112. 373 U.S. 546 (1963), *decree entered*, 376 U.S. 340 (1964).

113. *Id.* at 551.

114. *Id.*

115. *Id.* at 600.

116. An acre-foot of water is 325,850 gallons, "or the amount which will cover one acre one foot in depth." BLACK'S LAW DICTIONARY 25 (6th ed. 1990).

117. *Arizona*, 373 U.S. at 596.

118. *Id.* at 601.

purpose in reserving the land. The Supreme Court in *Arizona* did not clearly state whether the PIA standard would apply where the intended purpose of the reservation was not agriculture.[119] The PIA standard has been criticized by some commentators,[120] but it has generally been accepted by most authorities as the best solution to the quantification problem,[121] at least where the intended reservation purpose was for agriculture. An inherent flaw with the PIA standard is that it hinders tribal development by restricting tribes to agrarian economies. This is another example of how current federal policy of self-determination remains at odds with the Supreme Court's retention of a past federal Indian policy, i.e., the abandoned federal policy of assimilating the Indians into a pastoral people. The amount of water reserved under the PIA standard, however, apparently can be used for any purpose.[122]

D. Jurisdiction Over Reserved Water Rights

In 1952 Congress waived the sovereign immunity of the United States, where the government owns water rights, by consenting to joinder of the United States in state court "adjudication of rights to the use of water of a river system or other source."[123] This legislation is commonly known as the McCarran Amendment. It took more than twenty years for the McCarran Amendment to be used to subject Indian reserved water rights to state jurisdiction.

In a 1971 case that did not involve Indian reserved water rights, the Supreme Court broadly interpreted the McCarran Amendment as an "all-inclusive statute" subjecting all water rights of the United States to general adjudication in state proceedings regardless of how they were acquired.[124] All remaining doubts over the applicability of the McCarran Amendment to Indian reserved water rights were eliminated in *Colorado River Water Conservation District v. United States*,[125] in which the Court held that the

119. For example, the Supreme Court did not use the PIA standard in quantifying the reserved water for the Lake Mead National Recreation Area, the Havasu Lake National Wildlife Refuge, or the Imperial National Wildlife Refuge. Instead it calculated the amount of reserved water according to "annual quantities reasonably necessary to fulfill the purposes" of the reserved federal enclave. Arizona v. California, 376 U.S. 340, 345-46 (1964). Furthermore, when the Indian reservations attempted to reopen the decree in Arizona v. California, 460 U.S. 605 (1983), serious doubts were raised regarding whether the PIA standard should or could be used in other cases. Rusinek, *supra* note 106, at 370 n.90.

120. *See, e.g.*, Susan Millington Campbell, *A Proposal for the Quantification of Reserved Indian Water Rights*, 74 COLUM. L. REV. 1299, 1312 (1974).

121. Michael M. Hickey, *Application of the* Winters *Doctrine: Quantification of the Madison Formation*, 21 S.D. L. REV. 144, 152 (1976).

122. Colville Confederated Tribe v. Walton, 752 F.2d 397 (9th Cir.), *reh'g denied*, 758 F.2d 1324 (9th Cir. 1985), *cert. denied*, 475 U.S. 1010 (1986).

123. 43 U.S.C. § 666 (1988).

124. United States v. District Court for Eagle County, 401 U.S. 520, 524 (1971).

125. 424 U.S. 800 (1976).

McCarran Amendment extended to Indian reserved water rights.[126] By its nature water rights litigation places a tremendous burden on court resources, and the Court noted that "several Southwestern States have established elaborate procedures for allocation of water and adjudication of conflicting claims to that resource."[127] The Court further stated:

> [W]e also find significant (a) the apparent absence of any proceedings in the District Court, other than the filing of the complaint, prior to the motion to dismiss, (b) the extensive involvement of state water rights occasioned by this suit naming 1,000 defendants, (c) the 300-mile distance between the District Court in Denver and the [state court], and (d) the existing participation by the Government in [the state court] proceedings.[128]

The Court also stated, however, that the substantive reserved rights of the Indians present federal questions that, if preserved for appeal, would continue to be subject to Supreme Court review.[129] Of course, state courts exercising jurisdiction over *Winters* cases must apply federal common law, including all the special canons of interpretation in regard to the federal treaties and agreements creating the Indian reservations.[130]

The *Colorado River* decision had a tremendous impact on the adjudication of *Winters* rights and resulted in water rights litigation in Arizona, Colorado, Idaho, Montana, New Mexico, Washington, and Wyoming.[131] For example, in Montana the legislature enacted legislation to begin comprehensive adjudications of Indian reserved water rights for Montana's principal watersheds.[132] Harold Ranquist, a senior attorney with the Office of the

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126. *Id.* at 810-13. Since the McCarran Amendment does not expressly mention Indian water rights, this decision departed from Supreme Court precedent that, absent an express intent by Congress, sole jurisdiction over property rights and disputes involving Indian country rested in federal courts. *See, e.g.*, McClanahan v. State Tax Comm'n, 411 U.S. 164 (1973); Kennerly v. District Court, 400 U.S. 423 (1971); Menominee Tribe v. United States, 391 U.S. 404 (1968); COHEN, *supra* note 55, at 601 n.14; Elizabeth McCallister, Comment, *Water Rights: The McCarran Amendment and Indian Tribes' Reserved Water Rights*, 4 AM. INDIAN L. REV. 303, 303 (1976).

127. *Colorado River*, 424 U.S. at 804.

128. *Id.* at 820.

129. *Id.* at 813. However, as noted in *Cohen's Handbook*, "The efficacy of this solution may be doubted . . . particularly when the quantification of reserved water rights is predicated on complex factual determinations." COHEN, *supra* note 55, at 601-02 (citing Wilson v. Omaha Indian Tribe, 442 U.S. 653, 673-74 (1979)).

130. *See, e.g.*, State *ex rel.* Greely v. Confederated Salish and Kootenai Tribes, 712 P.2d 754, 763, 765-66 (Mont. 1985).

131. Robert D. Dellwo, *Recent Developments in the Northwest Indian Water Rights*, 20 NAT. RESOURCES J. 101, 112-13 (1980).

132. *Id.*

Solicitor in the Department of Interior, in a memorandum to the United States Solicitor, aptly stated: "The case of *Colorado River Water Conservancy District et al v. United States* hangs like the sword of Damocles over proceedings to determine the measure of reserved water rights of reservations for which the Department of Interior is responsible."[133]

In *Arizona v. San Carlos Apache Tribe*,[134] the Supreme Court reaffirmed its decision in *Colorado River*, stating:

> The McCarran Amendment, as interpreted in *Colorado River*, allows and encourages state courts to undertake the task of quantifying Indian water rights in the course of comprehensive water adjudications. Although adjudication of those rights in federal court instead might in the abstract be practical, and even wise, it will be neither practical nor wise as long as it creates the possibility of duplicative litigation, tension and controversy between the federal and state forums, hurried and pressured decisionmaking, and confusion over the disposition of property rights.[135]

After *Colorado River* and *Arizona*, the federal courts have, for the most part, withdrawn from Indian reserved water rights cases and deferred to state courts which have undertaken comprehensive adjudication of water rights.[136]

Groundwater issues would appear to fall within the plain language of the McCarran Amendment, which confers jurisdiction to adjudicate water rights "of a river system *or other source.*"[137] In short, the determination of whether Indian reserved water rights includes groundwater is occurring in state courts, such as those of Wyoming in the *Big Horn* case. Not surprisingly, as happened in *Big Horn*, some state courts are unlikely to recognize a reserved tribal right to groundwater.

Idaho provides another example of how states can use the McCarran Amendment. Idaho passed legislation in 1985 directing the adjudication of all

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133. *Id.* at 112 (quoting Internal Office Memoranda, Dep't of Interior (Dec. 6, 1976)).

134. 463 U.S. 545 (1983).

135. *Id.* at 569.

136. CANBY, *supra* note 57, at 293. A few federal courts have succeeded in retaining jurisdiction over Indian *Winters* claims. *See, e.g.*, United States v. Adair, 723 F.2d 1394, 1400-07 (9th Cir. 1983), *cert. denied sub nom.* 467 U.S. 1252 (1984) (concluding that district court retention of jurisdiction in some circumstances, as described in *Colorado River*, can avoid duplicative state court proceedings and piecemeal determination of water rights).

137. 43 U.S.C. § 666 (1988) (emphasis added). *But see* Stephen M. Feldman, *The Supreme Court's New Sovereign Immunity Doctrine and the McCarran Amendment: Toward Ending State Adjudication of Indian Water Rights*, 18 HARV. ENVTL. L. REV. 433, 484-86 (1994) (discussing how the McCarran Amendment can be construed as not waiving sovereign immunity with respect to Indian water rights).

United States and Indian water claims in the Snake River Basin.[138] The Idaho statute states:

> Effective management in the public interest of the waters of the Snake River basin requires that a comprehensive determination of the nature, extent and priority of the rights of all users of surface *and ground water* from that system be determined. Therefore, the director of the department of water resources shall petition the district court to commence an adjudication within the terms of the McCarran amendment, 43 U.S.C. section 666 . . . .[139]

The legislation, which compelled appearance of the United States in the Snake River Basin adjudication, was upheld by the Idaho Supreme Court.[140] Later in the case, however, the United States Supreme Court reversed the Idaho Supreme Court on the issue of whether the McCarran Amendment waived the United States sovereign immunity with respect to payment of filing fees of $10 million.[141] The Idaho water rights legislation required all claimants to pay filing fees (even though the United States was compelled to participate as an indispensable party) to cover the cost of the adjudication, and the Idaho Supreme Court concluded that the McCarran Amendment did, indeed, waive the federal government's sovereign immunity. Justice Johnson dissented from the Idaho decision, explaining:

> The "filing fees" the state seeks to charge the United States are not the usual modest fees for filing pleadings in a lawsuit. The "filing fees" at issue here exceed TEN MILLION DOLLARS! Of this amount, eight and one-half million dollars represent "filing fees" for the adjudication of "reserved" rights . . . .[142]

The United States Supreme Court concluded that while the United States can be compelled to participate in state water adjudications, the United States cannot be forced by states to finance their adjudication of Indian reserved water rights.[143]

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138. IDAHO CODE § 42-1406A (1990).

139. *Id.* (emphasis added).

140. *In re* Snake River Basin Water Sys., 764 P.2d 78 (Idaho 1988), *cert. denied*, 490 U.S. 1005 (1989).

141. United States v. Idaho, 113 S. Ct. 1893 (1993), *rev'g In re* Snake River Basin Water Sys., 832 P.2d 289 (Idaho 1992).

142. *In re* Snake River Basin Water Sys., 832 P.2d 289, 300 (Idaho 1992) (Johnson, J., dissenting). The Idaho Supreme Court noted that "reserved" rights generally "consist of those rights reserved by treaty with the Indians." *Id.* at 293.

143. United States v. Idaho, 113 S. Ct. at 1897.

V. The Groundwater Loophole

As noted at the outset, the issue of whether the reserved water right of Indian reservations applies to groundwater has never been directly decided by the Supreme Court. This "loophole" in Indian reserved water rights, however, has been addressed by a number of federal and state courts.

A. Federal Cases

The first federal cases applying the *Winters* doctrine to groundwater concerned land reserved for military installations. In *United States v. Fallbrook Public Utility District*,[144] the district court recognized, in accord with California law regarding interrelated waters, that groundwaters hydrologically connected to surface waters were part of the federal reserved water right attached to the Camp Pendleton military base.[145] *State ex rel. Shamberger v. United States*[146] held that the federal government could use underground or percolating waters located under land reserved for the Hawthorne Naval Ammunition Depot without obtaining permission from the State of Nevada.[147]

In the first case examining the issue of groundwater rights within an Indian reservation, the Montana district court in *Tweedy v. Texas Co.*[148] stated in dicta, "The *Winters* case dealt only with the surface water, but the same implications which led the Supreme Court to hold that surface waters had been reserved would apply to underground waters as well."[149] In *Tweedy*, the court denied recovery to the Blackfeet Indians, due to a lack of proof, against an oil and gas lessee who used groundwater underlying non-Indian surface owners' lands within the Blackfeet Indian Reservation in Montana.[150]

The Supreme Court appeared to settle by implication the Indian reserved groundwater rights issue in *Cappaert v. United States*,[151] although the case did not deal with an Indian reservation. At issue in *Cappaert* was the reserved water right for Devil's Hole National Monument, which was established by Congress in 1952 to preserve a unique desert pupfish found in a subterranean pool.[152] The Cappaerts began pumping groundwater for irrigation under a State of Nevada permit, thereby causing a decrease in the water level of the

144. 165 F. Supp. 806 (S.D. Calif. 1958).
145. *Id.* at 838-39, 847.
146. 165 F. Supp. 600 (D. Nev. 1958), *aff'd on other grounds*, 279 F.2d 699 (9th Cir. 1960).
147. *Id.* at 610-11.
148. 286 F. Supp. 383 (D. Mont. 1968).
149. *Id.* at 385.
150. *Id.* at 386-87.
151. 426 U.S. 128 (1976).
152. *Id.* at 131-33.

pupfish pool.[153] The Supreme Court upheld a permanent injunction granted to the United States to stop the Cappaerts' pumping.[154] In upholding the permanent injunction, Chief Justice Burger wrote for a unanimous Court, "[S]ince the implied-reservation-of-water-rights doctrine is based on the necessity of water for the purpose of the federal reservation, we hold that the United States can protect its water from subsequent diversion, whether the diversion is of surface or groundwater."[155]

In *United States v. Bel Bay Community & Water Association*,[156] the district court granted the Lummi Tribe partial summary judgment on the issue of the tribe's power to regulate groundwater under non-Indian held land within the external boundaries of the Lummi Indian Reservation.[157] Later in the case, however, the district court reversed itself due to concerns about tribal jurisdiction over non-Indians on the reservation in light of the Supreme Court's decision in *Oliphant v. Suquamish Indian Tribe*.[158]

The dispute in *Colville Confederated Tribes v. Walton*[159] concerned the Colville Indian Reservation's rights to water from No Name Creek, which was found to be hydrologically connected to an underlying aquifer.[160] The tribe brought suit in 1970 to enjoin the non-Indian owners of allotted lands within the reservation from using No Name Creek water reserved to the tribe.[161] The district court held that the Indian reserved water right was limited to Indians and did not pass to non-Indians with the title to alienated Indian lands.[162] Additionally, the district court relied on *Cappaert* in holding that Indian reserved water rights extended to groundwater.[163]

In *United States v. Anderson*,[164] a district court recognized that the Spokane Tribe of Indians had a reserved right to groundwater in the Chamokane water basin located in the northeastern part of Washington.[165]

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153. *Id.*

154. *Id.* at 137-38.

155. *Id.* at 143.

156. 5 Indian L. Rep. (Am. Indian Law. Training Program) F-43 (W.D. Wash. 1978).

157. *Id.* at F-44.

158. Dellwo, *supra* note 131, at 106 (citing *Bel Bay*, 5 Indian L. Rep. (Am. Indian Law. Training Program) at F-198). *Oliphant* held that Indian tribal courts lack criminal jurisdiction over non-Indians on Indian reservations. 435 U.S. 191 (1978).

159. 460 F. Supp. 1320 (E.D. Wash. 1978), *aff'd in part and rev'd in part*, 647 F.2d 42 (9th Cir.), *cert. denied*, 454 U.S. 1092 (1981).

160. *Id.* at 1323.

161. *Id.*

162. *Id.* at 1328.

163. *Id.* at 1326.

164. 591 F. Supp. 1 (E.D. Wash. 1982).

165. The case was originally decided by the Hon. Marshall A. Neill on July 23, 1979, in an unpublished opinion. Soon thereafter District Judge Neill died, and the parties filed motions to amend and supplement the judgment. *Anderson*, 591 F. Supp. at 3. District Judge Neill also presided over Colville Confederated Tribes v. Walton, 460 F. Supp. 1320 (E.D. Wash. 1978).

The United States filed suit in 1972 for a water rights adjudication of the Chamokane water basin on behalf of the Spokane Tribe.[166] After extensive proceedings the court determined that portions of the Chamokane Creek were interrelated with groundwater aquifers and that groundwater withdrawals by the tribe in the Mid-Chamokane area reduced the water flow downstream.[167] The tribe, which intervened in the action, obtained quantified amounts of groundwater and surface water for fishing and agricultural irrigation.[168] The quantified amount is subject to future modification if the tribe shows a "substantial change in circumstances" resulting in a greater water need for the tribe to meet the "primary purposes for creating the reservation."[169] The district court also held that the tribe could transfer reserved water quantified for irrigation to fishing uses.[170]

As discussed earlier, the United States Claims Court stated in *Gila River Pima-Maricopa Indian Community v. United States*[171] that the Gila River tribes had a reserved groundwater right to the extent that the tribes could beneficially use the water.[172]

Thus, the Supreme Court implied in *Cappaert*, and several lower federal courts have held, that the Indian reserved water right extends to groundwater.

B. Disagreement of Legal Commentators

Many legal commentators assumed that *Cappaert* was a de facto determination of the issue of Indian groundwater rights.[173] The logical assumption of these legal commentators is that just as the federal reserved water right of Indians carried over to other federal enclaves, the extension of the federal reserved right to groundwater in a non-Indian case (*Cappaert*) would carry back to Indian reservations. Certainly one could presume the Supreme Court would recognize a groundwater right for Indian reservations

166. 591 F. Supp. at 3.

167. *Id.* at 4.

168. *Id.* at 5, 8. Remarkably, the quantification of the fishing water right was found to be dependent on maintaining a proper water temperature for the tribe's fish hatchery, rather than on a minimum flow for actual fishing. *Id.* at 5.

169. *Id.* at 8.

170. *Id.* at 7 (citing Colville Confederated Tribes v. Walton, 647 F.2d 42 (9th Cir.), *cert. denied*, 454 U.S. 1092 (1981)).

171. 9 Cl. Ct. 660 (1986), *aff'd*, 877 F.2d 961 (Fed. Cir. 1989).

172. *Id.* at 699-700.

173. *See* CANBY, *supra* note 57, at 284; COHEN, *supra* note 55, at 585-86; Marc P. Bouret, Cappaert v. United States: *A Dehydration of Private Groundwater Use?*, 14 CAL. W. L. REV. 382, 390 (1978); Paige Graening, *Judicial Failure to Recognize A Reserved Groundwater Right for the Wind River Indian Reservation, Wyoming*, 27 TULSA L.J. 1, 10 n.59 (1991); Hickey, *supra* note 121, at 149; Aaron H. Hostyk, *Who Controls the Water?*, 18 TULSA L.J. 1, 51 (1982); Robert S. Pelcyger, *The* Winters *Doctrine and the Greening of the Reservations*, 4 J. CONTEMP. L. 19, 24-25 (1977); A. Dan Tarlock, *One River, Three Sovereigns: Indian and Interstate Water Rights*, 22 LAND & WATER L. REV. 631, 647 (1987).

since, in an opinion for a unanimous court, Chief Justice Burger recognized a reserved groundwater right for pupfish.

A few legal commentators have disagreed, however. Most notable was Dean Charles J. Meyers, who wrote:

> Early readings of *Cappaert* led me to believe that just as Indian water rights under *Winters* provided the foundation for federal reserved water rights on non-Indian reservations, federal groundwater rights on a National Monument under *Cappaert* would provide the basis for Indian groundwater rights.
>
> I no longer hold that view. I would argue that when an Indian Reservation was created, whether by treaty, statute or executive order, a property interest comparable to a fee simple absolute was set aside in trust for the tribe. The Indians own the beneficial interest in all the resources on their land: soil, oil and gas, coal, other minerals *and* groundwater.[174]

Dean Meyers favors treating groundwater as a property interest because it eliminates the whole reserved rights problem, which he argues will lead to maximized productivity and equitable distribution of groundwater.[175] However, returning groundwater to the domain of states while reserving surface waters would create a bifurcated Indian water rights system, which would muddle water disputes where surface water and groundwater are interconnected. Efficient water management with equitable water distribution will result only when legal systems treat surface water and groundwater uniformly.

C. State Approaches to Indian Reserved Groundwater Rights

The *Colorado River* decision resulted in a proliferation of water rights litigation in the western states.[176] This section will examine a cursory sampling of the state approaches to Indian reserved water rights. The states examined are Arizona, Montana, and Wyoming.

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174. Meyers, *supra* note 16, at 38; *see* Gwendolyn Griffith, *Indian Claims to Groundwater: Reserved Rights or Beneficial Interest?*, 33 STAN. L. REV. 103, 113 (1980); Note, *Federal Reserved Rights to Underground Water — A Rising Question in the Arid West*, 43 UTAH L. REV. 43, 52-53 (1973).

175. Meyers, *supra* note 16, at 38-89.

176. Dellwo, *supra* note 131, at 112-13. *See generally* A. Lynne Krough, *Water Right Adjudication in the Western States: Procedures, Constitutionality, Problems & Solutions*, 30 LAND & WATER L. REV. 9 (1995) (providing a comprehensive review of water rights adjudication in western states).

1. Arizona

Arizona is facing a water crisis. Water usage in the state exceeds by three times the available surface water supply in normal years, with groundwater pumping making up the shortfall.[177] The legislature's concern about the depletion of the groundwater supply led to the passage of a comprehensive groundwater management law that gradually reduces groundwater pumping.[178] As a result of demand greatly exceeding supply, junior-appropriators will be left with no water in the future; therefore, it has been critical for Arizona to determine the priorities and quantification of water rights.[179]

The primary source of Indian water rights litigation stems from the San Carlos and Tonte tribes on the Fort Apache Indian Reservation. The Tonte Apache tribe is rather small, but the San Carlos Apache tribe has approximately 8000 members on a reservation of more than two million acres in east-central Arizona.[180] The tribes have reserved right claims on the Gila River watershed, including the main stream of the Gila River and its tributaries.[181] These tributaries include the San Carlos, Black, Salt, San Simon, San Francisco, and Verde rivers.[182] In 1935, the United States stipulated to a decree on behalf of the Gila River tribes, which established their right to the waters of the Gila River with an "immemorial date of priority."[183]

In 1974 the Salt River Valley Water Users Association brought suit, under Arizona's general stream adjudication laws,[184] through the State Land Department.[185] The Department informed the United States and the Gila River tribes that they were required to file claims in the action. In response, the Indian tribes filed a variety of actions in federal district court.[186] The federal district court denied relief based on the state court's jurisdiction under the McCarran Amendment and in the interest of conserving judicial resources.[187] Though the

177. United States v. Superior Court, 697 P.2d 658, 663 (Ariz. 1985).

178. ARIZ. REV. STAT. ANN. §§ 45-401 to -637 (1994).

179. *Superior Court*, 697 P.2d at 663.

180. *Id.* at 662.

181. *Id.*

182. *Id.*

183. United States v. Gila Valley Irrigation Dist., Globe Equity Decree No. 59 (D. Ariz. June 29, 1935). The federal government negotiated this decree without the consent of the tribes, and it has been criticized for conceding a major share of the tribe's water rights. LLOYD BURTON, AMERICAN INDIAN WATER RIGHTS AND THE LIMITS OF LAW 65 (1991). The tribes have never accepted the decree and have been in litigation for decades over Gila River water rights. *Id.*

184. ARIZ. REV. STAT. ANN. §§ 45-231 to -245 (1994), *repealed and superseded by* ARIZ. REV. STAT. ANN. §§ 45-251 to -260 (1994). Approximately 80,000 claimants have been served for general adjudication of water rights under this statute. United States v. Superior Court, Maricopa County, 697 P.2d 658, 662 (Ariz. 1985).

185. *Superior Court*, 697 P.2d at 663-64.

186. *Id.*

187. *In re* Conflicting Rights to Use of Water from Salt River Above Granite Reef Dam, 484

Ninth Circuit Court of Appeals reversed the district court, the Ninth Circuit itself was reversed by the Supreme Court.[188] The case was then remanded to state court.

Back in state court in 1985, the case had been pending for ten years with an estimated twenty more years for a final determination.[189] The Arizona Supreme Court affirmed the jurisdiction of the Superior Court of Maricopa County[190] as well as the constitutionality of the proceedings under the due process clause.[191] The Superior Court then made some preliminary determinations on the relationship between surface water and groundwater to narrow the issues presented in the general adjudication.[192] Arizona is one of the few western states to adhere to a bifurcated system of water rights, whereby the prior appropriation doctrine applies to surface waters and groundwater belongs to the overlying landowner as limited by the doctrine of reasonable use.[193] To further complicate Arizona's water rights doctrine, the Arizona Supreme Court deems appropriable groundwater pumping that draws appreciably from the flow of surface water.[194] The Superior Court in *Gila River* created a test, which it acknowledged was arbitrary, for determining when groundwater becomes appropriable due to pumping that appreciably diminishes the flow of the surface water.[195] The Arizona Supreme Court reversed, holding that "any appropriate

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F. Supp. 778, 784 (D. Ariz. 1980), *rev'd sub nom.* San Carlos Apache Tribe v. Arizona, 668 F.2d 1093 (9th Cir. 1982), *rev'd*, 463 U.S. 545 (1983). Also, the district court stayed, pending the results of the comprehensive adjudication, the Gila River Indian Community's complaint that various upper valley defendants were pumping groundwater interconnected with the Gila River in violation of the Equity Decree that they were granted in 1935. United States v. Gila Valley Irrigation Dist., 959 F.2d 242 (9th Cir. 1992) (affirming the stay order).

188. Arizona v. San Carlos Apache Tribe, 463 U.S. 545 (1983). The Supreme Court held that disclaimers in state enabling acts, which required states entering the Union to disclaim any interest in Indian lands, were irrelevant to state court jurisdiction under the McCarran Amendment. *Id.* at 561-65.

189. *Superior Court*, 697 P.2d at 662.

190. *Id.*

191. *In re* Rights to the Use of the Gila River, 830 P.2d 442 (Ariz. 1992).

192. *In re* General Adjudication of All Rights to Use Water in the Gila River System and Source, 857 P.2d 1236, 1238 (Ariz. 1993) (en banc).

193. *Id.* at 1238-40. The Arizona Supreme Court has struggled a great deal with this doctrine, conceding that it is based on inaccurate and dated scientific data. *Id.* at 1240 (analyzing in detail the original bifurcation doctrine case, Maricopa County v. Southwest Cotton Co., 4 P.2d 369 (Ariz. 1931)). In 1952, by a 3-2 margin the court changed the rule to make groundwater subject to appropriation. Bristor v. Cheatham, 240 P.2d 185 (Ariz. 1952). Fourteen months later the court reversed itself again by a 3-2 margin and reinstated the bifurcated water system. Bristor v. Cheatham, 255 P.2d 173 (Ariz. 1953). *See generally* Robert J. Glennon & Thomas Maddock III, *In Search of Subflow: Arizona's Futile Effort to Separate Groundwater from Surface Water*, 36 ARIZ. L. REV. 567 (1994) (discussing various problems with the Arizona bifurcated system, particularly in regard to environmental effects and the federal reserved water rights doctrine).

194. *Gila River*, 857 P.2d at 1242.

195. *Id.* at 1239. Prior to this test, the Arizona courts took a narrow interpretation of this "subflow" appropriation doctrine. *Id.* at 1242, 1247. This narrow interpretation was important in

change in existing law must come from the legislature."[196] The court then stated:

> In this field, we not only confer private rights and interests but deal in the very survival of our society and its economy. Simply put, there is not enough water to go around. All must compromise and some must sacrifice. Definition of those boundaries is peculiarly a function for the legislature. It is plainly not a judicial task. Accordingly, we must look to the legislature to enact laws they deem appropriate for wise use and management.[197]

The Arizona Supreme Court did, however, find enough judicial discretion to overrule the objections of the United States and the tribes regarding the Superior Court's decision to exclude from the "comprehensive" adjudication wells having a de minimis effect on the water system.[198] Thus, well owners pumping de minimis amounts were granted "summary adjudication" of their groundwater rights.[199]

Absent a legislative change to Arizona's bifurcated water system, the groundwater rights of Indian reservations will not be subject to the prior appropriation doctrine. Of course, hydrologically connected surface water and groundwater are syphoned off each other when pumped or appropriated.[200] As a result, the Gila River tribes could end up gaining or losing substantial quantities of water where the Gila River waters are hydrologically connected to groundwaters. For example, de minimis groundwater pumping could substantially affect surface water quantities when taken as a whole, or the appropriation of Gila River water feeding reservation aquifers could end up depleting those aquifers.

Congress also has been active in settling Indian water rights in Arizona to end water rights litigation. In 1978 Congress ratified an agreement settling the water right claims of the Ak-Chin Indian community against the United States.[201] In the agreement, the United States admits failing to fulfill its trust obligations to the tribe by "allowing ground water beneath the reservation to be mined."[202] In exchange for the tribes waiving all water rights claims, the United States agreed to construct "a well field and water delivery system from

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that it would have excluded most hydrologically connected groundwater underlying the Indian reservation from the prior appropriation doctrine.

196. *Id.* at 1247.

197. *Id.*

198. *Id.* at 1248.

199. *Id.*

200. Grant, *supra* note 22, at 64.

201. Water Rights Claims — Ak-Chin Indian Community, Pub. L. No. 95-328, 92 Stat. 409 (1978).

202. *Id.*

nearby Federal lands" and "to meet the Ak-Chin community's needs for a permanent supply of water in a fixed amount."[203]

Congress passed the Southern Arizona Water Rights Settlement Act of 1982[204] to settle the claims of the Papago Tribe in regard to the San Xavier Reservation and the Sells Papago Reservation.[205] The Act granted the tribe the right to withdraw groundwater, but it also contained a provision stating that such a right shall not be "construed to establish whether or not the Federal reserved rights doctrine applies, or does not apply, to ground water."[206] Finally, in another water settlement agreement, Congress enacted the Salt River Pima-Maricopa Indian Community Water Rights Settlement Act of 1988.[207]

2. Montana

There are seven Indian reservations in Montana with tribal reserved water rights claims on the Big Horn River and Tongue River in Yellowstone Basin, the Milk and St. Mary river systems, the Big Muddy and Poplar river systems, the tributaries of the Missouri River, the Flathead River system, the Marias River system, Flathead Lake with the Flathead River system, and the Kootenai River.[208] The seven Indian reservations are of considerable size, and "the potential amount of water reserved is tremendous."[209]

In the Water Use Act of 1973,[210] the Montana legislature declared all waters within the state to be the property of the state and subject to appropriation for beneficial use.[211] The Act was amended in 1979 to include, under the McCarran Amendment, federal and Indian reserved surface water and groundwater rights in state proceedings for the general adjudication of existing water rights, either as claims or by compact.[212] The Montana Attorney General, as required by the amendment,[213] began proceedings in state court to adjudicate the federal and Indian surface water and groundwater rights claims.[214]

In apparent reaction to the Montana move for jurisdiction over Indian water rights, the United States brought actions in federal court to adjudicate the water

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203. *Id.*

204. Pub. L. No. 97-293, 96 Stat. 1274. *See infra* notes 292-96 and accompanying text (discussing this negotiated settlement).

205. *Id* § 301.

206. *Id.* § 303(e).

207. Pub. L. No. 100-512, 102 Stat. 2549 (1988).

208. State *ex rel.* Greely v. Confederated Salish and Kootenai Tribes, 712 P.2d 754, 758-59 (Mont. 1985).

209. *Id.*

210. 1973 Mont. Laws ch. 452 (codified at MONT. CODE ANN. § 85-2-101 (1985)).

211. *Id.*

212. 1979 Mont. Laws ch. 697 (codified at MONT. CODE ANN. §§ 3-7-101 to -502, 85-2-211 to -243, 85-2-701 to -704, 2-15-212 (1985)).

213. *See* MONT. CODE ANN. §§ 85-2-701 to -704 (1985).

214. State *ex rel.* Greely v. Water Court, 691 P.2d 833, 835-36 (Mont. 1984).

rights of Indian tribes.[215] The district court dismissed the suits in the interest of "wise judicial administration" because of the comprehensive state adjudication procedure.[216] The Ninth Circuit reversed, holding that the McCarran Amendment merely extended the consent of the United States to be sued but did not repeal federal jurisdiction.[217] The Supreme Court reversed in *Arizona v. San Carlos Apache Tribe*,[218] holding that the district court was "correct in deferring to the state proceedings."[219]

In a well-reasoned decision at a later stage of the adjudication, the Montana Supreme Court validated the water court's jurisdiction and set forth ground rules for any future state court adjudication.[220] The court stated that the priority right date would depend on the nature and purpose of the right.[221] Additionally, the priority right date would be the date the reservation was created if the intended reserved use did not exist prior to the creation of the reservation, but preexisting tribal uses would have an aboriginal priority date, characterized as "time immemorial."[222] An example of such a "time immemorial" right would be water reserved for hunting and fishing.[223] The court also stated that the PIA standard would apply to current and future irrigation of reserved lands intended for agriculture.[224] Citing to the *Winters* language in regard to the purpose of the Fort Belknap Reservation, however, the court stated, "[I]t may be that . . . 'acts of civilization' will include consumptive uses for industrial purposes."[225] The Montana Supreme Court's statement that it might look beyond the PIA standard in court proceedings could be viewed as increasing tribal bargaining power with the state. Additionally, the court stated that while "the Water Use Act of Montana does not explicitly state that the Water Court shall apply federal law in adjudicating Indian reserved rights . . . [w]e hold that state courts are required to follow federal law with regard to those water rights."[226]

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215. Northern Cheyenne Tribe v. Tongue River Water Users Ass'n, 484 F. Supp. 31 (D. Mont. 1979), *rev'd sub nom.* Northern Cheyenne Tribe v. Adsit, 668 F.2d 1080 (9th Cir. 1982), *rev'd and remanded sub nom.* Arizona v. San Carlos Apache Tribe, 464 U.S. 545 (1983), *district court aff'd*, Northern Cheyenne Tribe v. Adsit, 713 F.2d 502 (9th Cir. 1983).

216. *Id.* at 34-35.

217. Northern Cheyenne Tribe v. Adsit, 668 F.2d 1080, 1084 (9th Cir. 1982).

218. 463 U.S. 545 (1983).

219. *Id.* at 570.

220. State *ex rel.* Greely v. Confederated Salish and Kootenai Tribes, 712 P.2d 754 (Mont. 1985).

221. *Id.* at 764.

222. *Id.*

223. *Id.* (citing United States v. Adair, 723 F.2d 1394, 1412-15 (9th Cir. 1983), *cert. denied*, 467 U.S. 1252 (1984)).

224. *Id.* at 765.

225. *Id.*

226. *Id.* at 765-66. The court also said that the water court should take care so the water code was properly applied to Indian reservations. *Id.* at 764.

Unfortunately, the court did not discuss whether groundwater was included in the Indian reserved water right.

In 1979, the Montana Reserved Water Rights Compact Commission commenced negotiations for settlement of the Indian water rights claims with all but one Montana Indian tribe.[227] Further, pursuant to a Water Use Law provision that encourages settlement negotiations, the state adjudications for those tribes engaging in negotiations have been suspended until July 1, 1999.[228]

The Montana negotiations have resulted in settlements with the tribes of two Indian reservations but apparently continue for tribes of the remaining reservations. The Assinibone and Sioux Tribes of Fort Peck Indian Reservation executed a settlement compact with Montana in April, 1985.[229] The compact included a quantified reservation, held in trust by the United States, of surface water from the Missouri River and certain tributaries, plus groundwater beneath the reservation.[230]

The Northern Cheyenne Tribe compact with Montana was approved in May 1991, by the Montana State Legislature and the Northern Cheyenne Tribal Council.[231] On September 30, 1992, Congress ratified the compact.[232] This compact also recognized a quantified reserved groundwater right for the Northern Cheyenne Tribe.[233]

While neither the Montana legislature nor the Montana Supreme Court explicitly conceded reserved groundwater rights to Indian reservations, the State of Montana has recognized the Indian reserved groundwater right in negotiated water claim settlements. Montana also established a groundwater monitoring program in 1991, which includes the participation of Indian tribes.[234]

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227. State *ex rel.* Greely v. Water Court, 691 P.2d at 836.

228. MONT. CODE ANN. § 85-2-217 (Supp. 1992) (as amended effective May 17, 1991).

229. *Id.* § 85-20-201. Article 12 provided that "this compact shall have no force and effect until . . . approved by the Montana Legislature and submitted to Congress." *Id.* § 85-20-201, art. 12(B)(2). The Montana legislature approved the compact and filed it with the Secretary of State on April 30, 1985, who then submitted copies to Congress on June 12, 1985. *Id.* § 85-20-201 compiler's comments. However, the compact was never ratified by Congress. Legal commentators have stated that it is probable that the State of Montana and the tribes structured the compact so that congressional approval was not necessary. BURTON, *supra* note 183, at 79. The water compact, however, was approved by the U.S. Attorney and the Secretary of the Interior. *Id.*

230. *Id.* § 85-20-201, art. III(A).

231. MONT. CODE ANN. § 85-20-301 (Supp. 1992).

232. Northern Cheyenne Indian Reserved Water Rights Settlement Act of 1992, Pub. L. No. 102-374, 106 Stat. 1186.

233. MONT. CODE ANN. § 85-20-301, art. 2(A)(4) (Supp. 1992).

234. *Id.* § 85-2-906.

3. Wyoming

The Wind River Indian Reservation,[235] which comprises approximately 4000 square miles of land within Wyoming, is home to Shoshone, Bannock, and Arapahoe tribes.[236] The Wyoming legislature authorized the State to commence general adjudications of water rights on January 22, 1977, and the state commenced the *Big Horn* litigation on January 24, 1977.[237]

An attempt by the United States to remove the litigation to federal court failed, as did its state court jurisdictional challenge.[238] In November 1977, the tribes were permitted to intervene.[239] A special master was appointed,[240] and the trial occurred from January to December of 1981.[241] The special master's 451-page report, covering four years of conferences and hearings with more than 100 attorneys, included more than 15,000 pages of transcripts and over 2300 exhibits.[242] The special master found the Wind River Indian Reservation had a reserved water right and determined the purpose of the reservation was to establish a permanent Indian homeland.[243] The special master quantified and awarded reserved water rights for irrigation, stock watering, fisheries, wildlife and aesthetics, mineral and industrial uses, and domestic, commercial, and municipal uses.[244] The district court and the Wyoming Supreme Court rejected these findings, concluding instead that the intent behind the Wind River Indian Reservation treaty was "to create a reservation with a sole agricultural purpose."[245] Thus, the court decided that a reserved water right existed only for agricultural irrigation, stock watering, and domestic, commercial, and municipal uses.[246]

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235. Established by the Second Treaty of Fort Bridger with the Shoshone and Bannock Indians on July 3, 1868. An Arapahoe tribe was relocated to the reservation in 1878.

236. *In re* Big Horn River Sys., 753 P.2d 76, 83 (Wyo. 1988), *aff'd mem. by an equally divided Court sub nom.* Wyoming v. United States, 492 U.S. 406 (1989).

237. *Id.* at 84. *See generally* Michelle Knapik, Note, *Who Shall Administer Water Rights on the Wind River Reservation: Has Wyoming Halted an Environmentally Sound Indian Water Management System?*, 12 TEMPLE ENVTL. L. & TECH J. 233 (1993) (providing a detailed examination of the *Big Horn River System* water rights adjudication).

238. *Big Horn*, 753 P.2d at 84.

239. *Id.*

240. The United States was required to pay one-half the special master's fees and expenses. The motion of the United States for reimbursement in 1985 was denied, as was its appeal in *Big Horn*. *Id.* at 86, 116. *Contra* United States v. Idaho, 113 S. Ct. 1893 (1993).

241. *Big Horn*, 753 P.2d at 85.

242. *Id.*

243. *Id.*

244. *Id.*

245. *Id.* at 96.

246. *Id.* at 98-99. The court rejected water rights for fishing, mineral and industrial uses, and wildlife and aesthetic uses, even though the Wind River Indian Reservation treaty mentioned hunting, lumbering and milling, and roaming. *Id.* at 95-97. This apparently contradicts the canons of construction formulated by the Supreme Court for interpreting Indian treaties. The court also

Furthermore, the Wyoming Supreme Court affirmed the district court's determination that Indian reserved water rights did not include groundwater.[247] It so held, in spite of admitting:

> The logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater. Certainly the two sources are often interconnected. See § 41-3-916, W.S. 1977 (where underground and surface waters are "so interconnected as to constitute in fact one source of supply," a single schedule of priorities shall be made).[248]

Nonetheless, the court reasoned that it would not recognize an Indian reserved groundwater right in the absence of other cases directly applying the Indian reserved water rights doctrine to groundwater.[249] Then, the court stated, "The State has not appealed the decision that the Tribes may continue to satisfy their domestic and livestock needs (part of the agricultural award) from existing wells at current withdrawal rates; therefore, we do not address that question."[250] Thus, the court affirmed the district court's holding that rejected the inclusion of groundwater in the Indian reserved water right, yet which awarded the Indians priority rights to current groundwater withdrawal rates.

An equally divided Supreme Court[251] affirmed without a written opinion.[252] Apparently, the groundwater right issue was not raised on appeal,[253] and there apparently was no mention of reserved groundwater rights during oral arguments.[254] Thus, the Supreme Court's evenly divided affirmation of *Big Horn* provides no insight into the issues of Indian reserved groundwater rights.

VI. Settlements of Indian Water Claims

The most logical and efficient approach to Indian surface water and groundwater rights claims is through negotiated settlement. As noted by Professor David H. Getches:

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rejected the relevance of the tribes' use of water for mineral and industrial purposes since the 1868 treaty. *Id.* at 98. The word "hunting" in Indian treaties, in accord with the canons of construction, has been construed to include fishing. State v. Tinno, 497 P.2d 1386 (Idaho 1972).

247. *Big Horn*, 753 P.2d at 98.

248. *Id.* at 99 (citations omitted).

249. *Id.* at 100.

250. *Id.*

251. Justice O'Connor recused herself from the opinion. Rusinek, *supra* note 106, at 404. Justice O'Connor, however, did actively participate in the *Wyoming v. United States* oral arguments. *Id.* at 399.

252. Wyoming v. United States, 492 U.S. 406 (1989).

253. Rusinek, *supra* note 106, at 394-97.

254. *Id.* at 398-405.

> Because water, like wildlife management and land use control, needs to be managed on as unified a basis as possible, it is an area particularly susceptible to negotiated resolution. In the long run, the administrative details of managing water on [reservations] will have to be settled by agreements of the governments in question.[255]

Negotiated settlements of Indian water claims have become immensely important since the Supreme Court has expressed a preference for state adjudication of federal reserved water claims, which opened the floodgates to Indian water rights adjudications. Negotiated settlements also have considerable advantages over adjudications, including savings in time, money, and effort.[256] Negotiated settlements also provide the advantage of allowing the parties, rather than a court, to achieve compromises that fit their individual needs.[257] For example, the *Winters* doctrine generated a basic dilemma in that "two sovereigns simply cannot impose conflicting standards upon a geographically unified resource such as water."[258] Absent cooperative regulatory efforts, states and Indian tribes would likely develop very different approaches to regulating their interconnected water systems.

Federal, state, and tribal governments all play vital roles in water settlement negotiations. States and Indian tribes have discovered through negotiations that they share a mutual interest in minimizing conflicts and achieving equitable settlements.[259] The federal government has the most complex role, since it must protect the interests of the nation, while at the same time maintain its trustee role with respect to tribes.

A. States and Tribes

The Western States Water Council for the Western Governors Association undertook a study in 1984 in an attempt to quantify Indian water claims in fifteen western states.[260] The study found that the tribal claims accounted for

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255. David H. Getches, *Negotiated Sovereignty: Intergovernmental Agreements with American Indian Tribes as Models for Expanding First Nations' Self-Government*, 1 REV. CONST. STUD. 120, 159 (1993); *see* SLY, *supra* note 88, at 12, 192-93.

256. John A. Folk-Williams, *The Use of Negotiated Agreements to Resolve Water Disputes Involving Indian Rights*, 28 NAT. RESOURCES J. 63, 63 (1988).

257. DAVID H. GETCHES ET AL., FEDERAL INDIAN LAW CASES AND MATERIALS 832 (3d ed. 1993); Michael F. Lamb, *Adjudication of Indian Water Rights: Implementation of the 1979 Amendments to the Montana Water Use Act*, 41 MONT. L. REV. 73, 89 (1980).

258. Susan Williams, *Indian* Winters *Water Rights Administration: Averting New War*, 11 PUB. LAND L. REV. 53, 61-62 (1990). Williams notes that "surface and groundwaters are intimately interrelated, and water follows no political boundaries." *Id.*

259. John E. Thorson, *Resolving Conflicts Through Intergovernmental Agreements: The Pros and Cons of Negotiated Settlements*, *in* INDIAN WATER 1985: COLLECTED ESSAYS 25, 30 (Christine L. Miklas et al. eds., 1986). Thorson's article also contains a lucid explanation of the clashing tribal and state interests in water rights disputes. *Id.* at 28-30.

260. WESTERN GOVERNORS' POLICY OFFICE, INDIAN WATER RIGHTS IN THE WEST (1984).

a significant portion of the unused water resources in each state, and in some states the tribal claims exceeded the total available unused water.[261] Because of the shortfall in existing unused water for covering pending Indian water claims, resolution of disputes may require in some cases the reallocation of water from non-Indian to Indian uses. The reallocation of water poses difficult political barriers for state officials who face hostility from non-Indian water users who think Indians are receiving special treatment.[262]

In spite of the obstacles, progress is being made in some states. In 1982-1983, the Western Regional Council and The Western Governors Policy Office announced their support for negotiation of Indian water claims.[263] A few states, such as Montana, have taken very aggressive approaches to forging settlements with tribes, while other states, such as Wyoming, appear more prone toward litigation. As of March 1987, negotiation of Indian water rights claims were underway in Arizona, Idaho, Montana, Nevada, and New Mexico.[264]

Many tribal leaders maintain that water rights are critical for developing tribal economies and preserving cultural identities.[265] Tribal leaders who decide to negotiate sometimes face criticisms that they are "selling out,"[266] or are negotiating another bad deal for the tribe. These inferences are often justified in light of the legacy of state and federal governments in fashioning inequitable agreements and reneging on past promises.[267]

The prospects of "success" for Indian tribes through litigation have decreased with the *Colorado River*, *Arizona*, and *Big Horn* decisions. Some tribes have chosen to negotiate rather than risk litigating the applicability of the *Winters* doctrine to groundwater.[268] Also, tribes have shied away from litigating the groundwater issue because of the expense of collecting adequate groundwater data.[269] The threat of litigation, however, remains a substantial bargaining chip of tribes in settlement negotiations. Additionally, comprehensive federal and state economic development packages for tribes can result from negotiated settlements. Therefore, the gains resulting from

261. *Id.* at 94-95.

262. *Id.* at 32-33.

263. Folk-Williams, *supra* note 256, at 64 n.7.

264. *Id.* at 65.

265. AMERICAN INDIAN LAWYER TRAINING PROGRAM, INDIAN WATER POLICY IN A CHANGING ENVIRONMENT 56-58, 68-73 (1982). *See generally* Peterson Zah, *Water: Key to Tribal Economic Development*, *in* INDIAN WATER 1985: COLLECTED ESSAYS 75 (Christine L. Miklas et al. eds., 1986). Zah, Chairman of the Navajo Nation, notes that the decision to negotiate water rights is a decision for each tribe to make, and he expresses a concern that a single federal policy of negotiation compromises tribal bargaining power. *Id.*

266. GETCHES ET AL., *supra* note 257, at 832.

267. Thorson, *supra* note 259, at 25.

268. *Id.* at 43.

269. *Id.*

negotiation appear to be enough for tribal leaders to face the political obstacles of engaging in negotiated settlements.

B. The Executive Branch

The conflict between the Indian and state water interests is viewed by Indians and states as the result of federal actions.[270] This blame on the federal government is well founded since, even after the *Winters* case, the federal government encouraged settlement and development of the West without first resolving Indian water rights issues. Consequently, states and Indian tribes argue that the federal government should finance the cost of resolving the disputes. Meanwhile, the federal government has attempted to limit its liability through negotiated settlements.[271]

Presidents Jimmy Carter and Ronald Reagan both issued policy statements favoring negotiated settlements over litigation of reserved water rights disputes.[272] The Secretary of the Interior announced a preference of negotiated settlement to Indian water claims as federal policy on July 14, 1982, and formed the Federal Water Policy Advisory Group.[273]

President George Bush made a statement when signing into law the 1989 Puyallup Tribe of Indians Settlement Act[274] that "disputes regarding Indian water rights should be resolved through negotiated settlements rather than litigation."[275] In accord with President Bush's statement, the Interior Department's Working Group in Indian Water Settlements promulgated federal government criteria and procedures for participating in Indian water rights settlement negotiations.[276] The criteria declare that completed settlements should resolve all outstanding water claims so that "finality is achieved."[277] Additionally, the criteria state that "[t]he total cost of a settlement to all parties should not exceed the value of the existing claims as calculated by the Federal Government."[278]

The federal executive policy of favoring negotiated water settlements, which were supported by Presidents Carter, Reagan, and Bush, is unlikely to change as a result of a turnover in presidential administrations. The remaining question for the executive branch is how active the Department of Interior will

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270. Folk-Williams, *supra* note 256, at 68-69.

271. *Id.* at 69.

272. SLY, *supra* note 88, at 93 n.98 (citing President Carter, Federal Water Policy, 14 WEEKLY COMP. OF PRES. DOC. 1044, 1050 (1978); President Reagan, Statement on Indian Water Rights (July 14, 1982)).

273. Folk-Williams, *supra* note 256, at 64 n.7.

274. Pub. L. No. 101-41, 103 Stat. 83 (1989).

275. 55 C.F.R. § 9223 (1990).

276. *Id.*

277. *Id.*

278. *Id.*

be in Indian reserved water negotiations now that there are specific procedures for its participation in such negotiations.

C. Congress

Western congressional representatives and senators introduced more than fifty bills between 1955 and 1979 to abolish or modify the federal reserved water right.[279] These efforts were unsuccessful, however, and no major legislative proposal concerning Indian reserved water rights has been seriously considered by Congress.[280]

In recognizing that resolution of the Indian reserved water rights issue should shift from litigation to negotiated settlements, Congress has declared:

> [I]t is the policy of the United States, in fulfillment of its trust responsibility to Indian tribes, to promote Indian self-determination and economic self-sufficiency, and to settle, wherever possible, the water rights claims of Indian tribes without lengthy and costly litigation; . . . quantification of rights to water and development of facilities needed to utilize tribal water supplies effectively is essential to the development of viable Indian reservation economies, particularly in arid western States . . . .[281]

Congress, using its plenary power over the Indians, has ratified agreements negotiated by federal and state officials with Indian tribes.[282] Congress usually approves negotiated settlements of local concern that have the full support of a state's congressional delegation, but congressional scrutiny can cause uncertainty in settlements.[283]

In addition to the previously mentioned water rights settlements, Congress has enacted Water Right Claims — Ak-Chin Indian Community[284] (settling all state and federal water claims of the Ak-Chin Indian Reservation in Arizona); the Seminole Indian Land Claims Settlement Act of 1987[285] (ending federal court litigation in Florida); the Colorado Ute Indian Water

279. Note, *Indian Reserved Water Rights: The* Winters *of Our Discontent*, 88 YALE L.J. 1689, 1703-04 (1979); *see* Eva Hanna Morreale, *Federal-State Conflicts Over Western Waters — A Decade of Attempted "Clarifying Legislation,"* 20 RUTGERS L. REV. 423, 423 (1966).

280. Note, *supra* note 279, at 1704.

281. Fort McDowell Indian Community Water Rights Settlement Act of 1990, Pub. L. No. 101-628, § 402(a)(1), (3), 104 Stat. 4480, 4480; *see* Water Rights Claims — Ak-Chin Indian Community, Pub. L. No. 95-328, § 1, 92 Stat. 409, 409 (1978); Salt River Pima-Maricopa Indian Community Water Rights Settlement Act of 1988, Pub. L. No. 100-512, § 2, 102 Stat. 2549, 2549.

282. SLY, *supra* note 88, at 164-65.

283. Folk-Williams, *supra* note 256, at 95.

284. Pub. L. No. 95-328, 92 Stat. 409 (1978).

285. Pub. L. No. 100-228, 101 Stat. 1556.

Rights Settlement Act of 1988[286] (ending litigation in Colorado); the San Luis Rey Indian Water Rights Settlement Act of 1988[287] (ending litigation in California federal court and before FERC); the Fallon Paiute Shoshone Indian Tribes Water Rights Settlement Act of 1990[288] (ending litigation in Nevada federal court); the Fort Hall Indian Water Rights Act of 1990[289] (ending the Shoshone and Bannock tribes involvement in the Snake River Basin adjudications in Idaho state court); the Fort McDowell Indian Community Water Rights Settlement Act of 1990[290] (ending involvement of a Yavapai Indian community in litigation over the Gila River System); and the Jicarilla Apache Tribe Water Rights Settlement Act of 1992[291] (ending litigation in New Mexico state and federal courts).

The Southern Arizona Water Rights Settlement Act of 1982,[292] which settled the claims of the Papago Tribe with regard to the San Xavier Reservation and the Sells Papago Reservation, exemplifies the important role which Congress should play.[293] The conflict centered around the depletion of the aquifer that the Sells Papago Indian reservation shares with the City of Tucson, mining companies, and non-Indian irrigators.[294] The staff of Rep. Morris Udall (D.-Ariz.), whose congressional district encompassed the disputed area, performed a key role in facilitating the negotiations between representatives of the tribe, the State of Arizona, and the City of Tucson.[295] Representative Udall, who chaired the House Interior and Insular Affairs Committee at the time, obtained consent from the parties, pushed through congressional adoption, and obtained President Reagan's signature on the comprehensive groundwater settlement agreement in 1982.[296]

Congress has recognized that litigation is an inefficient means of resolving Indian water rights issues and now pursues a policy of negotiated settlements. Congress is not usually intimately involved in the negotiations, but it has played an important role through policy statements encouraging the settlement process and approval of the agreements.

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286. Pub. L. No. 100-585, 102 Stat. 2973.
287. Pub. L. No. 100-675, 102 Stat. 4000.
288. Pub. L. No. 101-618, 104 Stat. 3289.
289. Pub. L. No. 101-602, 104 Stat. 3059.
290. Pub. L. No. 101-628, 104 Stat. 4480.
291. Pub. L. No. 102-441, 106 Stat. 2237.
292. Pub. L. No. 97-293, 96 Stat. 1274 (1982).
293. Folk-Williams, *supra* note 256, at 79-80.
294. *Id.*
295. *Id.*; *see* BURTON, *supra* note 183, at 103-07.
296. SLY, *supra* note 88, at 71-73. President Reagan initially vetoed the settlement because he viewed the settlement's large financial burden on the United States government as a "federal bailout" of a local problem. BURTON, *supra* note 183, at 104. Representative Udall circumvented the veto by attaching the settlement agreement to a reclamation reform measure which the Reagan administration sought and which President Reagan signed into law. *Id.* at 107.

VII. Conclusion

In the states where the *Winters* doctrine is applicable, the Supreme Court's rulings on quantification and the McCarran Amendment have diminished the doctrine's importance. Quantification is simply a means of dragging Indian water rights into prior appropriation legal systems. In states where Indian *Winters* rights are in dispute, it is merely a matter of time for state governments to quantify and appropriate Indian "reserved" water rights through adjudication or negotiated settlement. Congress and the executive branch have expressed a policy of favoring negotiated settlements over protracted, costly litigation. States, for the most part, have also sought negotiated agreements over litigation.

The death knell for the *Winters* doctrine, however, does not mean that the doctrine was a failure.[297] The *Winters* doctrine has been successful in preserving Indian water rights through a period of time when they could have been forever lost. The move by states to quantify Indian water rights provides Indian tribes with an opportunity to influence state water policies. State and tribal cooperation in managing water systems is critical since water does not recognize sovereign boundaries. Tribal regulation of Indian water, in areas such as water quality and groundwater pumping, will be affected by similar state regulation (or lack of regulation) of non-Indian water, and vice versa.

Judicial recognition of an Indian reserved right to groundwater has an uncertain future given the results in *Big Horn*. While states, Indian tribes, and the federal government are not required to negotiate, the benefits of negotiated settlement of Indian reserved water rights exceed the costs of adjudication. And, states and tribes electing litigation over negotiated settlement will not risk adverse judicial decisions on unsettled issues, such as groundwater. Another consideration is that any judicial determination could be overturned by Congress exercising its plenary power over Indians. Current judicial uncertainty over Indian reserved groundwater rights may prove to be beneficial, however, in that this uncertainty may provide sufficient incentive for both states and Indian tribes to settle Indian reserved water claims.

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297. Nor does it mean that the *Winters* doctrine cannot be revitalized, especially in the context of water pollution. *See, e.g.*, William C. Galloway, Comment, *Tribal Water Quality Standards Under the Clean Water Act: Protecting Traditional Cultural Uses*, 70 WASH. L. REV. 177 (1995) (discussing how the Clean Water Act allows Indian tribes to set water quality standards). Theoretically, in riparian doctrine states Indian tribes could use the *Winters* doctrine to claim a right to clean water to stop or prevent upstream pollution or groundwater contamination, or to recover damages caused by contaminated water. To date, it does not appear that the *Winters* doctrine has been asserted against water polluters by tribes in eastern and midwestern states.